

# **EPA Jacket 84542-11**

NEW APPLICATIONS

DATE: 9/21/12

FILE NUMBER: 84542-RR

FEP (OPPIN ENTRY) SB SEP 21 2012  
(Initial & date)

FILE ROOM: \_\_\_\_\_  
(Initial & date)

SIG: \_\_\_\_\_  
(Initial & date)

FILE ROOM: \_\_\_\_\_  
(Initial & date)

✓ ASSIGN TO PM 34 (NO DATA)

\_\_\_\_ JACKET TO SHELF (DATA)

# Material Sent for Data Extraction

Reg # 84542-11

Description: \_\_\_\_\_

☐ Material(s) Sent to Data Extraction Contractors:

☒ New Stamped Label Dated 6/6/13

☐ Notification Dated \_\_\_\_\_

☐ New CSF(s) Dated \_\_\_\_\_

☐ Other: \_\_\_\_\_

☐ Decision #: 405920

☐ Other Action/Comments: \_\_\_\_\_

Attach this coversheet to the top of the material or jacket. It must be well organized and clipped together, NOT STAPLED. Then give the material with this coversheet to staff in the Information Services Center (Room S-4900).

Reviewer: Jaclyn Pyne

Phone: 347-0213 Division: AD

Date: 6/12/13

Created February 3, 2011



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Antimicrobials Division (7510P)  
1200 Pennsylvania Avenue NW  
Washington, D.C. 20460

EPA Reg. Number:

84542-11

Date of Issuance:

JUN 6 2013

Term of Issuance:

**Conditional**

Name of Pesticide Product:

Cupron Anti-Fungal Fibers and  
Fabrics III

## NOTICE OF PESTICIDE:

☒ Registration☐ Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Ag-Chem Consulting

Cupron Scientific

12208 Quinque Lane

Clifton, VA 20124

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

The application referred to above, submitted under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable under FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
2. Submit a one-year study required to satisfy the storage stability and corrosion characteristics requirements (Guidelines 830.6317 and 830.6320). You have 18 months from the date of registration to provide these data.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. The next label printing of this product must use this labeling unless subsequent changes have been approved. You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Signature of Approving Official:

  
Jacqueline Campbell

Product Manager Team 34

Regulatory Management Branch

Antimicrobials Division (7510P)

Date:

JUN 6 2013

Master Label containing

Sublabel 1. Complete Label

Sublabel 2. Hang Tag label

## CUPRON ANTI-FUNGAL FIBERS AND FABRICS III

[Additional Brand Name: Cupron AntiFungal Fibers]

\*\*\*\*\*

Active Ingredient

Copper (I) oxide 1.95 %

Other Ingredients (Garment) 98.05.%

Total 100 %

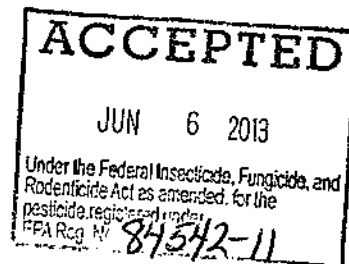
EPA Registration No. 84542-

EPA Establishment No \*\*\*\*\*

Made in the United States by Cupron Inc, Richmond, VA 23219

Distributed by\*\*\*\*\*

Net Contents\*\*\*\*\*



Cupron Anti Fungal Fibers and Fabrics III

Label Version 2

5/22/13

Page 1 of 4

Sublabel I. Complete Label

## Cupron Anti Fungal Fibers and Fabrics III

[When Additional Brand Name is used the statement Cupron enhanced fibers/fabric shown below is replaced with Cupron AntiFungal Fibers]

### -THIS TEXTILE (OR IDENTIFIED ACTIVE AREA) CONTAINS CUPRON ANTI-MICROBIAL TECHNOLOGY

Laboratory testing has shown that when cleaned regularly:

Cupron enhanced fibers/fabric will assist in reducing the spread of *T. mentagrophytes* (athlete's foot fungus).

Cupron enhanced fibers/fabric will [reduce, inhibit, suppress, kill] 99.9% of *T. mentagrophytes* [athlete's foot fungus] after 12 hours of contact with (sock, bathmats, shoe inserts).

Cupron enhanced fibers / fabric will inhibit the propagation and harboring of *T. mentagrophytes* on the [socks, bathmats, shoe inserts].

Cupron enhanced fibers / fabric will help to inhibit the growth of *T. mentagrophytes* the causative agent of athlete's foot on the [socks, bathmats, shoe inserts].

Cupron enhanced fibers / fabric will help to suppress the growth of *T. mentagrophytes* the fungus that is the causative agent of athlete's foot on the [socks, bathmats, shoe inserts].

Cupron enhanced fibers/fabric will [reduce, inhibit, suppress, kill] 99.9% of the *T. mentagrophytes* [athlete's foot fungus] on the [socks, bathmats, shoe inserts].

Cupron enhanced fibers / fabric will inhibit the growth of athlete's foot fungus on the [socks, bathmats, shoe inserts].

Cupron enhanced fibers/fabric reduce(s) the spread of *T. mentagrophytes*, athlete's foot fungus, on the surface of the sock.

Cupron enhanced fibers/fabric prevent(s) the growth of 99.9% of *T. mentagrophytes*, athlete's foot fungus, on the sock.

Cupron enhanced fibers / fabric will [reduce, inhibit, suppress, kill] 99.9% of *T. mentagrophytes*, athlete's foot fungus, on the [sock, bathmat, shoe inserts].

Cupron enhanced fibers/fabric significantly reduce(s) 99.9% of *T. mentagrophytes*, fungus that causes athlete's foot on the sock.

THIS PRODUCT IS EFFICACIOUS UP TO 20 MACHINE WASHINGS

Cupron Anti Fungal Fibers and Fabrics III

The use of this textile is a supplement to and not a substitute for standard infection control practices; users must continue to follow all current infection control practices, including those practices related to cleaning and sanitizing/disinfection of textiles. This textile has been shown to reduce microbial contamination, but it does not necessarily prevent cross contamination.

\*\*\*\*

Active Ingredient	
Copper (I) Oxide	1.95%
Other Ingredients (Garment)	98.05%
Total	100 %

EPA Registration No. 84543-

Made in the United States by Cupron Inc,  
800 East Leigh Street, Richmond, VA 23219

EPA Establishment No \*\*\*\*\*

Distributed by\*\*\*\*\*

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

[The directions in bracketed text may be included in an insert. If so there will be a statement to see the insert for additional directions for use of the product]

This product will retain its antimicrobial properties for 20 washings if maintained in the following manner:

Machine Wash Regular (not compatible with silvercare machines)

Temperature Cold, Warm, or Hot (up to 176 degrees Fahrenheit)

Tumble dry hot (up to 347 degrees Fahrenheit) for up to 30 minutes

May use Clorox or similar bleach

Do not use fabric softener, or laundry detergent containing fabric softeners

Do not dry clean.

Cupron Anti Fungal Fibers and Fabrics III

Label Version 2

5/22/13

Page 3 of 4

[Cupron Anti Fungal Fibers and Fabrics III may be used in hospitals, other healthcare facilities, and various public, commercial and residential buildings for the uses listed below.]

**TEXTILES ARE TO BE USED TO MAKE SOCKS, FOOTWEAR, SHOE INSERTS AND BATHMATS.**

#### **STORAGE AND DISPOSAL**

**Disposal:** Discard in trash when fibers/fabric are worn out or after 20 washings. Do not reuse clothing for other purposes than as sold.

#### **Sublabel 2: Hang Tag Label**

##### **CUPRON ANTI-FUNGAL FIBERS AND FABRICS III**

Kills 99.9% of the following Fungus  
after 12 hours of Exposure to the  
Cupron Fibers and Fabrics:

(Trichophyton mentagrophytes)

(other tested fungi)

Active Ingredient  
Copper (I) Oxide 1.95 %  
EPA Reg. No

EPA Est No.

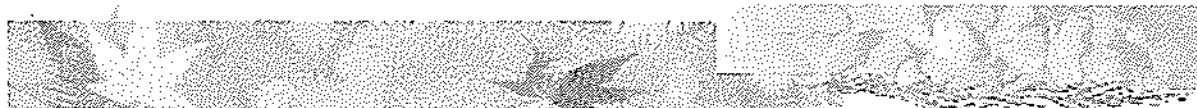
Dispose of garment in trash. Refer to  
hang tag for more information



## Grigsby, Stacey

---

**From:** Campbell, Jacqueline  
**Sent:** Thursday, June 06, 2013 12:31 PM  
**To:** Grigsby, Stacey; Pyne, Jaclyn  
**Subject:** Cupron Anti-Fungal Fibers and Fabric Registrations



Hi,

The correct Registration Template for the Cupron fiber products is "Conditional" "3(c)(7)(A)." Even though the CSF indicates that Cupron is manufacturing the active for this product, the MUP is a 100% repack of another's company's MUP, so they do not have to comply w/ the Copper generic DCI. Therefore, you do not need to have information for #3 on the template.

I am leaving at 1 pm today, so please sign the registration notices, stamp labels, and email a copy to Matt.

If you get time, please draft a report for the Weekly. It can be for next week's report.

Thanks,

*Jacqueline Hardy*

---

Jacqueline Hardy  
Product Manager (34)  
Antimicrobials Division (7510P)  
EPA  
2777 South Crystal Drive  
Arlington, VA 22202



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF  
CHEMICAL SAFETY AND  
POLLUTION PREVENTION

February 11, 2013

**MEMORANDUM**

Subject: Efficacy Review for EPA File Symbol 84542-RR, Cupron Anti-Fungal Fibers and Fabrics III  
DP Barcode: 405921

From: Marcus Rindal, Microbiologist *MR 2/11/13*  
Efficacy Evaluation Team  
Product Science Branch  
Antimicrobials Division (7510P)

Thru: Emily Mitchell, Chief *Em 2/11/13*  
Product Science Branch  
Antimicrobials Division (7510P)

To: Jacqueline Campbell-McFarlane PM34/Jaclyn Carl  
Regulatory Management Branch II  
Antimicrobials Division (7510P)

Applicant: Cupron Scientific  
800 East Leigh Street  
Richmond, VA 23219

Formulations from Label

<u>Active Ingredient(s)</u>	<u>% by wt.</u>
Copper (I) oxide.....	1.95%
<u>Other Ingredients (Garment)</u> .....	<u>98.05%</u>
Total	100.0%

## I BACKGROUND

The product, Cupron Anti-Fungal Fibers and Fabrics III (EAP File Symbol 84542-RR) is a new product. Cupron antibacterial fibers/fabrics consist of copper impregnated into materials to impart antibacterial properties. Cupron copper oxide is approved for use in textiles and the end use garments listed on the product label. No new uses are proposed in this end product labeling. The registrant proposes to make public health claims against *Trichophyton mentagrophytes* (the causative agent for Athlete's Foot) in this product's labeling. The protocol noted in the GLP efficacy study is consistent with one the Agency approved on November 16, 2011 for the specific claims requested on its labeling. Efficacy data were generated at MicroBioTest located at 105 Carpenter Drive in Sterling, VA, 20164.

The current data package contained a letter from the registrant's representative, Ag-Chem Consulting (dated September 6, 2012), EPA Form 8670-4 (Confidential Statement of Formula), Statement of No Data Confidentiality for each study, Good Laboratory Practices (GLP) Compliance Statement for each study, efficacy study (MRID No. 489299-01), and the proposed label.

## II USE DIRECTIONS

The product is proposed to support claims to assist in reducing the spread of *Trichophyton mentagrophytes* (causative agent of athlete's foot) by over 90% after 4 hours of contact with the garment. The product claims to remain efficacious up to 20 machine washings (wash temperature up to 176°F, tumble dry up to 347°F for up to 30 minutes, may use Clorox or similar bleach, no fabric softeners). The product is not compatible with silvercare machines or dry cleaning.

The product may be used in hospitals, other healthcare facilities, and various public, commercial and residential buildings for use in textiles to make socks, footwear, shoe inserts, and bathmats.

## III AGENCY STANDARDS FOR PROPOSED CLAIMS

The Agency has not developed standards for the proposed claims. The following is excerpted from the US EPA Science Advisory Panel on Treated Articles:  
[<http://www.epa.gov/scipoly/sap/meetings/1997/september/1097trtd.htm>]

### b. Treated (Residual, Self-Sanitizing Claims): Impregnated Fabrics and Textiles;

Treated (impregnated) fabrics and textiles typically are treated during the manufacturing process to provide durable residual self-sanitizing activity (e.g., significant reduction in numbers of infectious microorganisms which may be subsequently deposited on the finished item) in the presence of moist or wet contamination. The recommended Test Method is a **Simulated In-Use Study**. The Performance Standard for this Test Method is as follows: **EPA concludes efficacy is demonstrated when the number of test microorganisms on the test surface is reduced by 99.9% over that of the parallel control surface(s).** However, note that the recommended Test Methods include the following elements:

- (1) The test microorganisms employed in the study must be pathogens that are likely to be encountered in the environment in which the product is to be used;

- (2) The residue on the treated surfaces must be activated by the addition of moisture in a manner and over an exposure period identical to the use pattern for which the product is intended;
- (3) The same type(s) of surfaces without the treatment must be employed in the test and inoculated in a manner and over an exposure period identical to the use pattern for which the product is intended;
- (4) The environmental conditions employed in the test (e.g., relative humidity and temperature) must be reported. These conditions must be the same as those likely to be encountered under normal conditions of product use. Tests should also include those environmental conditions that would act to reduce the effective concentration of the product on the inanimate surface (e.g., rinsing, abrasion, organic load, repeated challenges by microorganisms, etc.); and,
- (5) The length of time the residual activity can be expected to exist under the expected use conditions must be documented.

Specific Test Acceptance Criteria developed in association with the approved protocol include:

- Neutralizer must be proven to be effective whereas the difference between the confirmed CFU added is within 0.3 Log of the recovered CFU for the treated fabric samples.
- The untreated control fabric counts must average  $\geq 1.0 \times 10^4$  CFU/carrier
- All sterility controls must be negative for growth.

To meet the proposed effectiveness requirements, a three log reduction in viable microorganisms over the untreated control fabric is required.

#### IV. BRIEF DESCRIPTION OF THE DATA

**MRID 489454-02: "Assessment of Fungicidal Efficacy of Copper Oxide Impregnated Fabric After Four Hours of Exposure,"** Test Organism: *Trichophyton mentagrophytes* (ATCC 9533), for 75% Cupron Polyester/ 25% Nylon (EPA File Symbol 84542-RR), by Angela L. Hollingsworth. Study conducted at Microbiotest. Study completion date – August 28, 2012. Project Number 619-127.

This study was conducted against *Trichophyton mentagrophytes* (ATCC 9533). Three lots (Lot Nos. 501, 502, and 503) of the product were tested using Microbiotest Labs protocol # 619.1.06.12.12. Each test lot was tested under two conditions, 0 washings and 20 times washings/dryings. For the 0 wash condition, the test and control fabrics were evaluated for fungicidal efficacy under ideal conditions (no exposure to wash/drying or simulated environmental stressing). For the 20 times wash/drying condition, the test and control fabrics were exposed to a regimen to simulate consumer use conditions. The regimen mimicked in use conditions via simulated environmental stressing. The procedures included exposure to high humidity under incubation followed by exposure to ultraviolet irradiation. In addition the fabric carriers were inoculated with low levels of fungi to mimic recontamination of fabric during its life of use before exposure to a specified wash and drying procedure. A high-level fungal inoculum preparation was used for the efficacy conditions (0 and 20 wash/drying) and a low level fungal inoculum preparation was used for the 20 times wash/drying simulated use procedures. All fungal inoculum preparations (high and low-level) were suspended in synthetic sweat to mimic a simulated use biological challenge. For the efficacy evaluations, the fabric carriers were inoculated with a high-level inoculum preparation and incubated at  $36 \pm 2^\circ\text{C}$  under humid

conditions (85-100% relative humidity) for the duration of the four hour contact time. At the conclusion of the contact time, each fabric carrier was transferred to neutralizer and processed using stomaching procedures to extract any remaining survivors. Samples of the neutralizer recovery broth were cultured and enumerated after incubation.

## V. RESULTS

### Efficacy Results – Four Hour Contact Time Against *Trichophyton mentagrophytes*

Treatment	Results – CFU/Carrier Recovered			
		Lot 501	Lot 502	Lot 503
0-Wash Condition	Average CFU/Carrier Recovered*	$<5.0 \times 10^0$	$<5.0 \times 10^0$	$<5.0 \times 10^0$
	Average Log <sub>10</sub> Reduction	$>3 \text{ Log}_{10}$	$>3 \text{ Log}_{10}$	$>3 \text{ Log}_{10}$
	Average % Reduction	$>99.9\%$	$>99.9\%$	$>99.9\%$
	Average CFU/Carrier Lot 500- Control	$1.1 \times 10^4$		
20-Wash/Dry Condition	Average CFU/Carrier Recovered	$5.8 \times 10^2$	$6.2 \times 10^2$	$5.6 \times 10^2$
	Average Log <sub>10</sub> Reduction	$1.3 \text{ Log}_{10}$	$1.3 \text{ Log}_{10}$	$1.4 \text{ Log}_{10}$
	Average % Reduction	$>95.5\%$	$>95.5\%$	$>95.7\%$
	Average CFU/Carrier Lot 500- Control	$1.3 \times 10^4$		

\* Note: No recovery reported as  $<5.0 \times 10^0$

## VI. CONCLUSIONS

The submitted efficacy data (MRID 489454-02) do not support the use of the product, Cupron Anti-Fungal Fibers and Fabrics III, as a fungicide against *Trichophyton mentagrophytes* on impregnated fabric. When tested as described, 75% Cupron Polyester/ 25% Nylon achieved at least a three-log (99.9%) reduction over the untreated control fabric for the 0-Wash Condition but achieved less than two-log reduction (95.6%) for the 20-Wash Condition. Neutralization and sterility controls met the criteria established for a valid test.

## VII. RECOMMENDATIONS

The proposed label claims that the product, Cupron Anti-Fungal Fibers and Fabrics III, is effective as a fungicide against *Trichophyton mentagrophytes* on impregnated fabric in the presence of 5% simulated sweat organic soil load for a 4 hour contact time at 36-37°C and 86-92% RH. These claims are not supported by the applicant's data. The log reduction and percent reduction results reported do not conform to the stated method for calculating results outlined in the study protocol. The registrant should append the report to include log reduction and percent reduction results as stipulated.

**AG-CHEM CONSULTING**

PESTICIDE SCIENCE AND REGISTRATION

12208 QUINQUE LANE, CLIFTON VA 20124

(703) 266-0128 [MWBROOKS01@YAHOO.COM](mailto:MWBROOKS01@YAHOO.COM)

(703) 266-4377 FAX

September 6, 2012

Document Processing Desk  
Office of Pesticide Programs (7508C)  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Yard  
Arlington VA 22202-4501

Attn: Jacqueline Campbell-McFarlane  
Product Manager 34  
Antimicrobials Division  
**Re: Registration of Cupron Anti-Fungal Fibers and Fabrics III**  
**File Symbol 84542-**

Dear Ms. Campbell-McFarlane:

On behalf of Cupron, LLC, Ag-Chem Consulting LLC is hereby submitting the following product chemistry data, formatted in accordance with Pesticide Registration notice 2011-3, in support of registration of the above product.

Guideline	MRID	Study Title
PAG 158.150-158.190 OPPTS Series 830 (61, 62, 63, 64)	48945401	Cupron Anti-Fungal Fibers and Fabrics III, Product Chemistry Group A: Product Identity, Composition and Analytical Test Guidelines and Group B: Physical and Chemical Properties Test Guidelines Study # 90612

Please feel free to contact me at 703-266-0128 if you have any questions concerning this submission.

Sincerely,

Matthew W. Brooks, Ph.D.  
Ag-Chem Consulting LLC.  
Authorized Representative of Cupron Technologies



**Ag-Chem Consulting**  
Pesticide Science and Registration  
12208 Quinque Lane, Clifton VA 20124  
(703) 266-0128 [mwbrooks01@yahoo.com](mailto:mwbrooks01@yahoo.com)  
(703) 266-4377 Fax

September 6, 2012

Document Processing Desk  
Office of Pesticide Programs (7508C)  
U.S Environmental Protection Agency  
One Potomac Yard  
2777 S. Crystal Drive  
Arlington VA 22202

Attn: Jacqueline Campbell-McFarlane  
Registration Division (RD)

**Re: Registration of Cupron Anti-fungal Fiber and Fabrics III  
EPA File Symbol 84542-**

Dear Ms. Campbell-McFarlane,

On behalf of Cupron Inc., Ag-Chem Consulting LLC is hereby submitting the following data, formatted in accordance with Pesticide Registration notice 86-5, in support of registration of the above product.

Guideline	MRID	Study Title
OPPTS Series 91-4	48945402	Assessment of Fungicidal Efficacy of Copper oxide Impregnated Fabric After Four Hours of Exposure: Trichophyton Mentagrophytes Study # 6 t9-127

Please feel free to contact me at 703-266-0128 if you have any questions concerning this submission.

Sincerely,

Matthew W. Brooks, Ph.D.  
Ag-Chem Consulting LLC.  
Authorized Representative of Cupron Inc.





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



United States  
Environmental Protection  
Agency

Office of Pesticide Programs

Antimicrobials Division (AD)

January 30, 2013

EPA Reg#: 84542-RR		DP Barcode: 405920	
		Submission #: 924136	
Product name: CUPRON ANTI-FUNGAL FIBERS AND FABRICS III		Registrant: Cupron, Inc.	
Reviewer's name: Juan F. Negrón		AD/PSB/CTT- Product Chemistry Review	
Agency due date: 02/11/13		PSB received date: 10/11/12	
CTT received date: 10/11/12		Science due date: 12/20/12	
Formulation type: EUP		Sub data package due date: 12/28/12	
Integrated system: <input type="checkbox"/>	Non integrated system: <input checked="" type="checkbox"/>	Food use: <input type="checkbox"/>	Non food use: <input checked="" type="checkbox"/>
Action Code: A540		Date Completed: 01/30/13	
PC Code(s)	CAS #(s)	Active Ingredient Names	% wt (label)
025601	1317-39-1	Cuprous oxide	1.95
Molecule structure (optional):			
<div style="text-align: center;"><math display="block">\begin{array}{c} \text{O} \\ \diagup \quad \diagdown \\ \text{Cu} \quad \text{Cu} \end{array}</math></div>			
Test Lab:			
MRID: 48945400, 48945401			
Approver: Karen P. Hicks		Approved date: 01/30/13	
Guideline:			
Comments:			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



United States  
Environmental Protection  
Agency


Office of Pesticide Programs

**Antimicrobials Division (AD)**

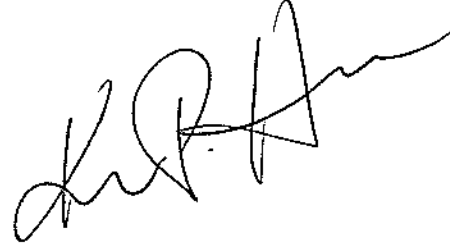
January 30, 2013

**MEMORANDUM**

**Subject:** Product Chemistry Review for EPA Reg # 84542-RR  
**Product name:** CUPRON ANTI-FUNGAL FIBERS AND FABRICS III  
DP #405920

**From:** Juan F. Negrón, Chemist   
Product Science Branch, CT Team  
Antimicrobials Division (7510P)

**Thru:** Karen P. Hicks, CT Team Leader  
Product Science Branch  
Antimicrobials Division (7510P)

A large, stylized handwritten signature, likely belonging to Karen P. Hicks, is written over the "Thru:" section.

**To:** Jacqueline Campbell-McFarlane / Jaclyn Carl  
PM Team 34

**Applicant:** Cupron, Inc.  
**Action code:** A540  
**Due date:** 02/11/13

**Product Formulation**  
**Active Ingredient from label:**

	% by wt.
Cuprous oxide	1.95

## **BACKGROUND:**

On behalf of the registrant, Cupron, Inc., the consultant, Ag-Chem Consulting, is submitting a new end use product, "CUPRON ANTI-FUNGAL FIBERS AND FABRICS III." The product is used for machine wash. The Product Chemistry Reviewer has reviewed the following documents:

- Confidential Statements of Formula (CSFs), dated 09/06/12 & 01/30/13, for the basic formulation.
- A letter, dated 09/06/12. MRID # 48945400.
- A draft label, dated 09/06/12 & pin punched on 09/20/12.
- A study titled "Cupron Anti-Fungal Fibers and Fabrics III, Product Chemistry Group A: Product Identity, Composition and Analytical Test Guidelines and Group B: Physical and Chemical Properties Test Guidelines" dated 09/06/12 MRID # 48945401.

## **FINDINGS:**

1. The CSF, dated 09/06/12, for the basic formulation is obsolete.
2. The CSF, dated 01/30/13, for the basic formulation is revised.
3. The CSF and the label have the same nominal concentration for the active ingredient (AI).
4. The certified limits do not meet the EPA Standard Certified Limits for the pigment. The registrant updated the certified limits since 01/30/13 and all components meet the EPA Standard Certified Limits.
5. The OPPTS 830.1800 Enforcement Analytical Method does not provide complete instruction to conduct an assay. However, as of 01/30/13, the registrant requested to use the MRID #48930501 as the enforcement analytical method.

## **CONCLUSIONS:**

The CSF, dated 01/30/13, for the basic formulation is acceptable. The OPPTS 830 Groups (A & B) guidelines have been met except the OPPTS 830.6317 Storage Stability and OPPTS 830.6320 Corrosion Characteristic studies.

## PRODUCT CHEMISTRY REVIEW

### I. CONFIDENTIAL STATEMENT OF FORMULA

a. Type of formulation and source registration:

- Non-integrated formulation system [x]
- Are all TGAIs used registered? Yes [x]      No []
- Integrated formulation system []
- If "ME-TOO," specify EPA Reg. No. of existing product:

b. Clearance of inerts for non-food:

Yes [x]      No []

c. Physical state of product:

*solid*

d. The chemical IDs and analytical information (including that for the TGAIs), density, pH, and flammability are consistent with that given in 830 Series, Group B.

Yes [X]      No [ ]

e. The NCs and CLs are acceptable.

Yes []      No [X]

f. Active ingredients

<u>NC</u> (%)	<u>LCL</u> (%)	<u>UCL</u> (%)
------------------	-------------------	-------------------

Cuprous oxide

1.95

1.85

2.05

g. For products produced by an integrated formulation system:

- Do all impurities of toxicological significance have a UCL?  
Yes [ ]      No [ ]      Not applicable [X]
- Have all impurities of  $\geq 0.1\%$  in the product been identified?  
Yes [ ]      No [ ]      Not applicable [X]

## II PRODUCT LABEL

a. The active ingredient(s) statement (chemical IDs and NC) is consistent with the CONFIDENTIAL STATEMENT OF FORMULA. Yes ☒ No ☐

b. The formula contains one of the following:

- |  |                              |  |
|--|------------------------------|--|
| • 10% or more of a petroleum distillate: | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| • 1.0% or more of methyl alcohol:        | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| • sodium nitrite at any level:           | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| • a toxic List 1 inert at any level:     | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| • arsenic in any form:                   | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |

c. If "yes" to any of the above, does the inert ingredients statement contain a footnote indicating this? Yes ☐ No ☐ Not applicable ☒

d. Appropriate warning statement(s) regarding flammability or explosive characteristics of the product are listed on the label.

Yes ☐ No ☐ Not applicable ☒

e. The storage and disposal instructions for the pesticide container are in compliance with PR Notice 84-1 for household use products or PR Notice 83-3 for all other uses.

Yes ☐ No ☐

f. The product requires an expiration date at which time the NC falls below the LCL (based on the 1-year storage stability data or other information).

Yes ☐ No ☒

**Table A:**  
**Product Chemistry (Series 830, Group A)**

<b>Data Requirements</b>	<b>Acceptance of Information</b>	<b>MRID No.</b>
830.1550 Product Identity <sup>1</sup>	A	48945401
830.1600 Description of Materials	A	48945401
830.1620 Production Process <sup>2</sup>	NR	
830.1650 Formulation Process <sup>3</sup>	A	48945401
830.1670 Formation of Impurities <sup>4</sup>	NR However, the registrant has indicated "none known."	
830.1700 Preliminary Analysis <sup>5</sup>	NR	
830.1750 Certified Limits <sup>6</sup>	A See CSF.	
830.1800 Enforcement Analytical Method <sup>7</sup>	U	48945401
	A	48930501
830.1900 Submittal of Samples	Available upon request.	48945401

Explanation: A=acceptable; N=not acceptable (i.e., item was submitted but is not acceptable); NA=technically not applicable; NR= not required; G=data gap (i.e., item was not submitted but is required); U=requires upgrading (i.e., item is unacceptable but upgradeable); W=waived; E=EPA estimate.

<sup>1</sup>See Confidential Appendix A for additional information.

<sup>2</sup>For MP/EP products produced by an integrated formulation system.

<sup>3</sup>For products from a TGAI or MP.

<sup>4</sup>May be waived unless actual/possible impurities are of toxicological concern.

<sup>5</sup>Five batch analysis required for products produced by an integrated formulation system.

<sup>6</sup>If different from standard CLs recommended in 40 CFR 158.175, this should be discussed in Confidential Appendix A.

<sup>7</sup>Abbreviate method used as follows: gas chromatography (GC), infrared (IR), ultraviolet absorption (UV), nuclear magnetic resonance (NMR), etc.

**Table B:****Physical and Chemical Characteristics (Series 830, Group B)**

Physical/Chemical Properties*	Acceptance of Data	Value or Qualitative Description	MRID No.
830.6302 Color	NR	<i>[Not required for end-use products.] However, it has been reported as varies.</i>	48945401
830.6303 Physical State	A	Solid @ room temperature.	48945401
830.6304 Odor	NR	<i>[Not required for end-use products.] However, it has been reported as inodorous.</i>	48945401
830.6313 Stability to Normal and Elevated Temperatures, Metals, and Metal Ions	NR	<i>[Not required for end-use products.]</i> However, the registrant has indicated that the product is not expected to come into contact with metals or metal ions.	48945401
830.6314 Oxidation/ Reduction; Chemical Incompatibility	A	Product does not contain an oxidizing or reducing agent.	48945401
830.6315 Flammability/ Flame Extension	A	Does not contain flammable components.	48945401
830.6316 Explodability	A	Not potentially explosive and it contains no potentially explosive components.	48945401
830.6317 Storage Stability	N	The A1 is known to be stable under normal conditions.	48945401
830.6319 Miscibility	A	Not applicable as material is solid.	48945401
830.6320 Corrosion Characteristics	N	Not corrosive. (re-pack)	48945401
830.6321 Dielectric Breakdown Voltage	A	Not to be used around electrical equipment.	48945401
830.7000 pH	A	Not applicable, the product is solid.	48945401
830.7050 UV/Visible Absorption	NR	<i>[Not required for end-use products.]</i>	48945401
830.7100 Viscosity	A	Not applicable, the product is solid.	48945401
830.7200 Melting Point/Melting Range	NR	<i>[Not required for end-use products.]</i>	48945401
830.7220 Boiling Point/Boiling Range	NR	<i>[Not required for end-use products.]</i>	48945401
830.7300 Density/Relative Density/Bulk Density	A	1.20 g/ml	48945401
830.7370 Dissociation Constants in Water	NR	<i>[Not required for end-use products.]</i>	48945401
830.7550/830.7560/830.7570 Partition Coefficient	NR	<i>[Not required for end-use products.]</i>	48945401
830.7840/830.7860 Water Solubility	NR	<i>[Not required for end-use products.]</i>	48945401
830.7950 Vapor Pressure	NR	<i>[Not required for end-use products.]</i>	48945401

Explanation: A=acceptable; N=not acceptable; NA=technically not applicable; NR= not required; G=data gap.

**AG-CHEM CONSULTING**

PESTICIDE SCIENCE AND REGISTRATION

12208 QUINQUE LANE, CLIFTON VA 20124

(703) 266-0128 [MWBROOKS01@YAHOO.COM](mailto:MWBROOKS01@YAHOO.COM)

(703) 266-4377 FAX

September 6, 2012

Document Processing Desk  
Office of Pesticide Programs (7508C)  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Yard  
Arlington VA 22202-4501

Attn: Jacqueline Campbell-McFarlane  
Product Manager 34  
Antimicrobials Division

**Re: Registration of Cupron Anti-Fungal Fibers and Fabrics III**  
**File Symbol 84542-**

Dear Ms. Campbell-McFarlane:

On behalf of Cupron, LLC, Ag-Chem Consulting LLC is hereby submitting the following product chemistry data, formatted in accordance with Pesticide Registration notice 2011-3, in support of registration of the above product.

Guideline	MRID	Study Title
PAG 158.150-158.190 OPPTS Series 830 (61, 62, 63, 64)	48945401	Cupron Anti-Fungal Fibers and Fabrics III, Product Chemistry Group A: Product Identity, Composition and Analytical Test Guidelines and Group B: Physical and Chemical Properties Test Guidelines Study # 90612

Please feel free to contact me at 703-266-0128 if you have any questions concerning this submission.

Sincerely,

Matthew W. Brooks, Ph.D.  
Ag-Chem Consulting LLC.  
Authorized Representative of Cupron Technologies





**Ag-Chem Consulting**  
Pesticide Science and Registration  
12208 Quinque Lane, Clifton VA 20124  
(703) 266-0128 [mwbrooks01@yahoo.com](mailto:mwbrooks01@yahoo.com)  
(703) 266-4377 Fax

September 6, 2012

Document Processing Desk  
Office of Pesticide Programs (7508C)  
U.S Environmental Protection Agency  
One Potomac Yard  
2777 S. Crystal Drive  
Arlington VA 22202

Attn: Jacqueline Campbell-McFarlane  
Registration Division (RD)

**Re: Registration of Cupron Anti-fungal Fiber and Fabrics III**  
**EPA File Symbol 84542-**

Dear Ms. Campbell-McFarlane,

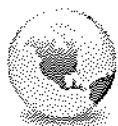
On behalf of Cupron Inc., Ag-Chem Consulting LLC is hereby submitting the following data, formatted in accordance with Pesticide Registration notice 86-5, in support of registration of the above product.

Guideline	MRID	Study Title
OPPTS Series 91-4	48945402	Assessment of Fungicidal Efficacy of Copper oxide Impregnated Fabric After Four Hours of Exposure: Trichophyton Mentagrophytes Study # 619-127

Please feel free to contact me at 703-266-0128 if you have any questions concerning this submission.

Sincerely,

Matthew W. Brooks, Ph.D.  
Ag-Chem Consulting LLC.  
Authorized Representative of Cupron Inc.



Re: Enforcement Analytical Method.

Matthew Brooks

to:

Juan Negrón

01/30/2013 10:52 AM

Cc:

Jacqueline Campbell-McFarlane, Stacey Grigsby, Lorena Rivas, "Carl.Jaclyn@epamail.epa.gov"

Hide Details

From: Matthew Brooks <mwbrooks01@yahoo.com>

To: Juan Negrón/DC/USEPA/US@EPA

Cc: Jacqueline Campbell-McFarlane/DC/USEPA/US@EPA, Stacey Grigsby/DC/USEPA/US@EPA, Lorena Rivas/DC/USEPA/US@EPA, "Carl.Jaclyn@epamail.epa.gov" <Carl.Jaclyn@epamail.epa.gov>

Please respond to Matthew Brooks <mwbrooks01@yahoo.com>

Yes- they are essentially all the same matrix for analysis purposes.

I will update my data matrices for RE, RN and RR to cite MRID 489305-01 for the enforcement method.

Jacqueline- FYI- Cupron submitted and owns the report referenced by this MRID.

Sincerely

Matt Brooks

ps- Juan did you get the revised CSFs- the email was kicked from a couple of the cc citations.

-Matt

Matthew Brooks, Ph.D.

703-266-0128 Phone

703-266-4377 Fax

mwbrooks01@yahoo.com

---

From: "Negrón.Juan@epamail.epa.gov" <Negrón.Juan@epamail.epa.gov>

To: Matthew Brooks <mwbrooks01@yahoo.com>

Cc: Campbell-McFarlane.Jacqueline@epamail.epa.gov; Grigsby.Stacey@epamail.epa.gov;

Rivas.Lorena@epamail.epa.gov; Carl.Jaclyn@epamail.epa.gov

Sent: Wednesday, January 30, 2013 10:30 AM

Subject: Enforcement Analytical Method.

Hil Good that you mentioned the 84542-I, because I check the information for the OPPTS 830.1800 Enforcement Analytical Method and it shows a MRID # 489305-01 and I accepted this method. So, let me know if the Agency can use this method. I need a letter or email saying that this MRID number mentioned above can be used as the enforcement analytical method for 84542-(RE, RN & RR).

For any concern please let me know.

U.S. Environmental Protection Agency  
Antimicrobials Division

Attn. Juan F. Negrón  
Room: S-8848  
Phone # 703-308-8116  
Fax # 703-308-8481  
Mail Code 7510P  
2777 South Crystal Drive  
Arlington, VA 22202



Ag-Chem Consulting  
Pesticide Science and Registration  
12208 Quinque Lane, Clifton VA 20124  
(703) 266-0128 [mwbrooks01@yahoo.com](mailto:mwbrooks01@yahoo.com)  
(703) 266-4377 Fax

March 21, 2013

Document Processing Desk  
Office of Pesticide Programs (7508C)  
U.S Environmental Protection Agency  
One Potomac Yard  
2777 S. Crystal Drive  
Arlington VA 22202

Attn: Jacqueline Campbell-McFarlane PM 34  
Antimicrobial Division (AD)

Re: **Registration of Cupron Anti-fungal Fiber and Fabrics, Cupron Anti-fungal Fiber and Fabrics II, Cupron Anti-fungal Fiber and Fabrics III, and Cupron Anti-fungal Fiber and Fabrics IV**  
**EPA File Symbol 84542-I, 84542-RN, 84542-RR, 84542-RE**

Dear Ms. Campbell-McFarlane,

On behalf of Cupron Inc., Ag-Chem Consulting LLC is hereby submitting the following data, formatted in accordance with Pesticide Registration notice 2011-3, in support of registration of the above product.

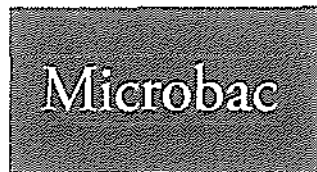
Guideline	MRID	Study Title
OPPTS Series 830.7520		Particle Size Diameter Distribution for Copper (I) Oxide Study# Cupron-130312

Please feel free to contact me at 703-266-0128 if you have any questions concerning this submission.

Sincerely,

Matthew W. Brooks, Ph.D.  
Ag-Chem Consulting LLC.  
Authorized Representative of Cupron Inc.





## **MICRO TEST**

A Division of Microbac Laboratories, Inc.  
105-B Carpenter Drive  
Sterling, VA 20164

### **MICROBIOTEST PROTOCOL**

#### **ASSESSMENT OF FUNGICIDAL EFFICACY OF COPPER OXIDE IMPREGNATED FABRIC AFTER TWELVE HOURS OF EXPOSURE**

*Trichophyton mentagrophytes*

Prepared for:

Cupron Inc.  
Suite 123  
800 East Leigh Street  
Richmond, VA 23219

Testing Facility:

**MICROBIOTEST**  
A Division of Microbac Laboratories, Inc.  
105 Carpenter Drive  
Sterling, VA 20164

February 26, 2013

Page 1 of 18

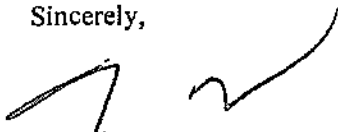
MICROBIOTEST Protocol: 619.2.02.26.13

MICROBIOTEST Project: 619-\_\_\_\_\_

We request that the Agency provide, in writing, an acknowledgment that studies which satisfy the attached protocol (Microbiotest 619.2.02.26.13) as written, support the above claims for textiles.

Please feel free to contact me at 703-266-0128 if you have any questions concerning this submission.

Sincerely,



Matthew W. Brooks, Ph.D.  
Ag-Chem Consulting LLC  
An Authorized Representative of Cupron Inc.



Ag-Chem Consulting  
Pesticide Science and Registration

Cupron enhanced fibers/fabric will assist in reducing the spread of (*Trichophyton mentagrophytes*)

Cupron enhanced fibers/fabric will reduce (*Trichophyton mentagrophytes*) by 99.9% after 12 hours of contact with the sock

Cupron enhanced fibers/fabric will kill (*Trichophyton mentagrophytes*) by 99.9% after 12 hours of contact with the sock

Cupron enhanced fibers/fabric will inhibit the propagation and harboring of (*Trichophyton mentagrophytes*)

Cupron enhanced fibers/fabric will inhibit the propagation and harboring of (*Trichophyton mentagrophytes*) that come into contact with the material

Cupron enhanced fibers/fabric will help to inhibit the growth of (*Trichophyton mentagrophytes*), the causative agent of athlete's foot

Cupron enhanced fibers/fabric will suppress the growth of (*Trichophyton mentagrophytes*), the fungus that is the causative agent of athlete's foot.

Cupron enhanced fibers/fabric will reduce 99.9% of the *Trichophyton mentagrophytes* (athlete's foot fungus) on the sock

Cupron enhanced fibers/fabric will kill 99.9% of the *Trichophyton mentagrophytes* (athlete's foot fungus) on the sock

Cupron enhanced fibers/fabric will be sanitized against athlete's foot fungus

Cupron enhanced fibers/fabric will inhibit the growth of athlete's foot fungus on the sock

Cupron enhanced fibers/fabric will be treated as a self-sanitizer against athlete's foot fungus

Cupron enhanced fibers/fabric will kill 99.9% of the *Trichophyton mentagrophytes* (athlete's foot fungus)

Cupron enhanced fibers/fabric effectively sanitizes athlete's foot fungus on the sock

Cupron enhanced fibers/fabric reduces the spread of athlete's foot fungus on the surface of the sock

Cupron enhanced fibers/fabrics prevent the growth of 99.9% athlete's foot fungus on the sock

Cupron enhanced fibers/fabrics kill 99.9% of athlete's foot fungus on the sock

Cupron enhanced fibers/fabrics kill 99.9% of athlete's foot fungus

Cupron enhanced fibers/fabrics significantly reduce 99.9% of fungus on the sock that causes athlete's foot

Cupron enhanced fibers/fabrics provide a self-sanitizing surface against the recurrence of athlete's foot fungus on the sock

Cupron enhanced fibers/fabric will reduce 99.9% of the *Trichophyton mentagrophytes* (jock itch fungus) on the sock







Ag-Chem Consulting  
Pesticide Science and Registration  
12208 Quinque Lane, Clifton VA 20124  
(703) 266-0128 [mwbrooks01@yahoo.com](mailto:mwbrooks01@yahoo.com)  
(703) 266-4377 Fax

March 6, 2013

Jacqueline McFarlane PM34  
Antimicrobial Division  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Yard  
Arlington VA 22202-4501

Subject: Cupron Textile Protocol for *Trichophyton mentagrophytes*

Dear Ms. McFarlane-Campbell,  
On behalf of Cupron Inc. (800 East Leigh St., Richmond VA 23219), Ag-Chem Consulting LLC is hereby submitting a revised protocol for public health claims against *Trichophyton mentagrophytes*, the causative agents for "athlete's foot" and "jock itch". The protocol is identical to the one approved on November 16, 2011 for a 12 hour exposure except the acceptance criteria is 3-log throughout.

Consistent with the 3-log reduction and previously allowed Agency claims, Cupron proposes that the following claims be associated with studies fulfilling the acceptance criteria outlined in this protocol. Namely:

- Cupron enhanced fibers/fabric will kill 99.9% of the *Trichophyton mentagrophytes* (jock itch fungus) on the sock
- Cupron enhanced fibers/fabric will be sanitized against jock itch fungus
- Cupron enhanced fibers/fabric will inhibit the growth of jock itch fungus on the sock
- Cupron enhanced fibers/fabric will be treated as a self-sanitizer against jock itch fungus
- Cupron enhanced fibers/fabric will kill 99.9% of the *Trichophyton mentagrophytes* (jock itch fungus)
- Cupron enhanced fibers/fabric effectively sanitizes jock itch fungus on the sock
- Cupron enhanced fibers/fabric reduces the spread of jock itch fungus on the surface of the sock
- Cupron enhanced fibers/fabrics prevent the growth of 99.9% jock itch fungus on the sock
- Cupron enhanced fibers/fabrics kill 99.9% of jock itch fungus on the sock
- Cupron enhanced fibers/fabrics kill 99.9% of jock itch fungus
- Cupron enhanced fibers/fabrics significantly reduce 99.9% of fungus on the sock that causes jock itch
- Cupron enhanced fibers/fabrics provide a self-sanitizing surface against the recurrence of jock itch fungus on the sock

2- In light of the Agency's request that Cupron must adhere to a 3-log standard and because of apparent inconsistencies with the Agency's protocol review process, Cupron requests that the following claims be associated by the Agency, in writing, with its proposed revised protocol. The claims and protocol are attached.

3- Discussion of when Cupron will submit the 3-log reduction data and when the Agency will provide its reviews.

4- Timetable as to when Cupron can expect this registration





Ag-Chem Consulting  
Pesticide Science and Registration  
12208 Quinque Lane, Clifton VA 20124  
(703) 266-0128 [mwbrooks01@yahoo.com](mailto:mwbrooks01@yahoo.com)  
(703) 266-4377 Fax

March 6, 2013

#### Agenda for Cupron Meeting with EPA

March 7, 2012 11am

1- The Agency has approved a 1-log protocol entitled Test Method for Continuous Reduction of Bacterial Contamination on Copper Alloy Surfaces (attached to this Agenda). Cupron's 1-log protocol was based on that 1-log protocol as discussed with the Agency. The Agency confirmed Cupron's submitted study satisfied the protocol 1-log criteria. In light of this study Cupron would like an explanation as to why the following analogous claims can not be immediately approved on Cupron's proposed label:

Cupron enhanced fibers/fabric will assist in reducing the spread of (Trichophyton mentagrophytes)

Cupron enhanced fibers/fabric will reduce (Trichophyton mentagrophytes) by over 90% after 4 hours of contact with the sock

Cupron enhanced fibers/fabric will kill (Trichophyton mentagrophytes) by over 90% after 4 hours of contact with the sock

Cupron enhanced fibers/fabric will inhibit the propagation and harboring of (Trichophyton mentagrophytes)

Cupron enhanced fibers/fabric will inhibit the propagation and harboring of (Trichophyton mentagrophytes) that come into contact with the material

Cupron enhanced fibers/fabric will help to inhibit the growth of (Trichophyton mentagrophytes), the causative agent of athlete's foot

Cupron enhanced fibers/fabric will suppress the growth of (Trichophyton mentagrophytes), the fungus that is the causative agent of athlete's foot.

Cupron enhanced fibers/fabric will suppress the growth of (Trichophyton mentagrophytes), the fungus that is the causative agent of athlete's foot upon the material.

Cupron enhanced fibers/fabric will reduce the propagation of (Trichophyton mentagrophytes)

W0

Recommendation of Division Directors Negotiated Due Dates					
Decision #:467772		Registration #:84542-I		Petition #:	
469993, 469990		84542-RE			
469987		84542-RR, RN			
<input type="checkbox"/> See page 2 for additional registration entries					
Chemical Name: Cupric oxide					
Fee Category: A540				PRIA Decision Time Frame: 4 months	
Submitted by: Jaclyn		Pyne		Branch: OCSPP/OPPI/AD	Date: 02/07/2013
Company: Cupron, Inc.					
Original PRIA Due Date: 02/11/2013			Proposed New PRIA Due Date: 02/22/2013		
Previous Negotiated Due Dates:					
Is the "Fix" in-house? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> n/a      If not, date "Fix" expected:					
Negotiated Due Date Reason:					
Additional Data Required	<input type="checkbox"/> Product Chemistry	<input type="checkbox"/> Toxicology	<input type="checkbox"/> Acute Tox	<input type="checkbox"/> Environmental	
	<input checked="" type="checkbox"/> Efficacy	<input type="checkbox"/> Ecological	<input type="checkbox"/> Residue	<input type="checkbox"/> Other	
Data Deficiencies	<input type="checkbox"/> Product Chemistry	<input type="checkbox"/> Acute Tox	<input checked="" type="checkbox"/> Efficacy	<input type="checkbox"/> Residue	<input type="checkbox"/> Toxicology
	<input type="checkbox"/> Environmental	<input type="checkbox"/> Ecological	<input type="checkbox"/> Labeling	<input type="checkbox"/> Other	<input type="checkbox"/> Not Submitted
Late Risk Assessment	<input type="checkbox"/> Human Health	<input type="checkbox"/> Ecological			
Interim Consideration	<input type="checkbox"/> Agency Initiated	<input checked="" type="checkbox"/> Registrant Initiated			
<input type="checkbox"/> CSF	<input type="checkbox"/> Public Process	<input type="checkbox"/> Risk Issues Environmental	<input type="checkbox"/> Risk Issues Human Health		
<input type="checkbox"/> Impurities Review	<input type="checkbox"/> Label	<input type="checkbox"/> Administrative-FR Notice	<input type="checkbox"/> Other – Comment Field		
Summary of Deficiency Type(s): <input type="checkbox"/> Not Submitted (N) <input type="checkbox"/> Deficiencies (D)					
Product Chemistry: <input type="checkbox"/> Acute Tox: <input type="checkbox"/> Efficacy: <input checked="" type="checkbox"/> Labeling: <input type="checkbox"/> Ecological Data: <input type="checkbox"/> Other (describe): <input type="checkbox"/>					
Describe Interactions with Company (describe when contacted and company's response including response to previous negotiated due dates): See below.					
"75 Day" Letter sent? <input type="checkbox"/> Yes, Date sent <input checked="" type="checkbox"/> No and reason for none? <i>Add comments on page 2</i>					
Rationale for Proposed Due Date: See below.					
Registrant notified that this is the last negotiation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not Applicable					
Approve: <input checked="" type="checkbox"/>			Disapprove: <input type="checkbox"/>		
If disapproved, action to be taken:					
OD or DOD Signature: CN=Marty Monelli/OU=DC/O=USEPA/C=US				Date: 02/11/2013	

<b>Decision #:</b> 467772	<b>Registration #:</b> 84542-I	<b>Petition #:</b>
469993, 469990	84542-RE, RN,RR	
469987		

**Issue(s) (describe in detail):**

**BACKGROUND:** The products for Cupron Inc. (EPA File Symbol 84542-I, RN, RE, RR) are new products. Cupron antibacterial fibers/fabrics consist of copper impregnated into materials to impart antibacterial properties. Cupron curpous oxide is approved for use in textiles and the end use garments listed on the product label. No new uses are proposed. The registrant proposes to make new public health claims against Trichophyton mentagrophytes (the causative agent for Athlete's Foot) in this products' labeling.

**ISSUE:** 3 log reductions are necessary for sanitizer claims and santizers have the lowest threshold for efficacy claims among antimicrobial products. The efficacy data for these products only show a 1 log reduction on treated fabric after 20 washings. At this level, the product's efficacy is marginal. Additional testing may be needed to determine how long a 3 log reduction may be maintained. Label claims will need to be adjusted.

Cupron indicates that the agency accepted a 1 log reduction in the protocol reviewed prior to the study being submitted. However, the agency disagrees and has not found evidence supporting Cupron's claims.

If Cupron is unwilling to submit additional data and/or modify their claims, AD intends to pursue a cannot grant letter. OGC has indicated they will expedite their review.

Cupron is coming in for a meeting to discuss these issues with AD on February f4th. They requested the PRIA date be renegotiated to allow time for the meeting and discussion.

**RECOMMENDATION:** Renegotiate the PRIA date to allow the Agency and the company time to discuss how to resolve the issues. If the company is unwilling to address the efficacy deficiencies raised by submitting additional data and/or modifying the label, AD plans on proceeding with cannot grant letters. Another renegotiation will be necessary if the company agrees to address the deficiencies.

**Comment(s):**

# Audit Trail for

## Recommendation of Division Directors Negotiated Due Dates

**PDF Name:** PRIAv5.pdf

**Form Number:** PRIA

**Document Identifier:** PRIA-13038161739-JP

SUBMITTED on 02/08/2013 at 10:16:39 AM by CN=Jaclyn Pyne/OU=DC/O=USEPA/C=US

APPROVED on 02/08/2013 at 02:29:45 PM by CN=Mike Mendelsohn/OU=DC/O=USEPA/C=US

APPROVED on 02/08/2013 at 03:56:42 PM by CN=Jennifer McInain/OU=DC/O=USEPA/C=US

APPROVED AND COMPLETED on 02/11/2013 at 08:22:16 AM by CN=Marty Monell/OU=DC/O=USEPA/C=US

# PRIA 2 – 21 Day Content Screen Review Worksheet

(EPA/OPP Use Only)

3/23/09

21 Day Screen Start Date: 09-21-2012

Experts In-Processing Signature: Lijana Shrestha Date 09-25-2012 Fee Paid: Yes ☒

Division management contacted on issues No ☐ Yes ☐ Date \_\_\_\_\_

EPA Reg. Number: <u>84542-RR</u>		EPA Receipt Date: <u>09-20-2012</u>				
Items for Review				Yes	No	N/A*
1	Application Form (EPA Form 8570-1)(link to form) signed & complete including package type			X		
2	Confidential Statement of Formula all boxes completed, form signed, and dated (EPA Form 8570-4) (Link to form)			X		
	a) All inerts (link to <a href="http://www.epa.gov/opprd001/inerts/">http://www.epa.gov/opprd001/inerts/</a> ), including fragrances, approved for the proposed uses (see Footnote A) <u>non-food use</u>	yes	no			
		X				
3	Certification with Respect to Citation of Data (EPA Form 8570-34) (Link to form) completed and signed (N/A if 100% repack)			X		
	Certificate and data matrix consistent			X		
	If applicant is relying on data that are compensable, is the offer to pay statement included. (see Footnote B)	yes	no			
	If applicable, is there a letter of Authorization for exclusive use only.					
4	Formulator's Exemption Statement (EPA Form 8570-27) (Link to form) completed and signed (N/A if source is unregistered or applicant owns the technical)			X		
	Data Matrix (EPA Form 8570-35) (Link to form) both internal and external copies (PR 98-5) (Link to PR 98-5) completed and signed (N/A if 100% repack)			X		
5	a) Selective Method (Fee category experts use)	yes	no			
	b) Cite-All (Fee category experts use)					
	c) Applicant owns all data (Fee category experts use)					
6	5 Copies of Label (link to <a href="http://www.epa.gov/oppfead1/labeling/lrm/">http://www.epa.gov/oppfead1/labeling/lrm/</a> ) (Electronic labels on CD are encouraged and guidance is available)( link to <a href="http://www.epa.gov/pesticides/regulating/registering/submissions/index.htm#labels">http://www.epa.gov/pesticides/regulating/registering/submissions/index.htm#labels</a> )			X		

7	Is the data package consistent with PR Notice 86-5 (link to PRN 86-5)	X		
8	Notice of Filing (link to <a href="http://www.epa.gov/pesticides/regulating/tolerance_petitions.htm">http://www.epa.gov/pesticides/regulating/tolerance_petitions.htm</a> ) included with petitions (link to <a href="http://www.epa.gov/pesticides/regulating/tolerances.htm">http://www.epa.gov/pesticides/regulating/tolerances.htm</a> )			✓
9	If applicable for conventional applications, reduced risk rationale (link to <a href="http://www.epa.gov/opprd001/workplan/reducedrisk.html">http://www.epa.gov/opprd001/workplan/reducedrisk.html</a> )			✓
10	Required Data (link to <a href="http://www.epa.gov/pesticides/regulating/data_requirements.htm">http://www.epa.gov/pesticides/regulating/data_requirements.htm</a> ) and/or data waivers. See Footnote C.			
	a) List study (or studies) not included with application			



Comments:

11-3: associated studies have passed review

inerts: approved for non food use

documentation: all required forms are present & complete

- formulator's exemption statement source reg.# doesn't match source on CSF
- formulator's exemption is properly filled out per. PM (see attached correspondence)

contact history: 1st: 9-28-12 2nd: N/A

status: Pass

\* N/A – Not Applicable

MRID 489454

AB

Footnotes

A. During the 21 day initial content review, all CSFs will be reviewed to determine whether all inerts listed, including fragrances, are approved for the proposed uses. If an unapproved inert is identified, the applicant must either 1) resolve the inert issue by, for example, removing the inert, substituting it with an approved inert, submitting documentation that EPA approved the inert for the proposed pesticidal uses, correcting mistakes on the CSF, etc. or 2) provide the data to support OPP approval of the inert or 3) withdraw the application. Removing or substituting an inert ingredient will require a new CSF and may require submission of data. All information, forms, data and documentation resolving the inert issue must have been received by the Agency or the application withdrawn within the 21 day period, otherwise, the Agency will reject the application as described below.

To successfully complete this aspect of the 21 day initial content screen, applicants are **strongly encouraged** to verify that all inert ingredients have been approved for the application's uses even if a **product is currently registered** by consulting the inert Web

site [link to <http://www.epa.gov/opprd001/inerts/lists.html>] and if the inert is not approved, to **obtain the necessary inert approval prior to submitting an application to register a pesticide product containing that inert ingredient**. Some inert ingredients are no longer approved for food uses or certain types of uses. The name and/or CAS number on a CSF must match the name and CAS number on this web site. Simple typographical errors in the name or CAS number have resulted in processing delays.

If an inert is not listed on the inert ingredient web site and the applicant believes that the inert has been approved, the applicant should contact the Inert Ingredient Assessment Branch (IIAB) at [inertsbranch@epa.gov](mailto:inertsbranch@epa.gov) and resolve the issue. Copies of the correspondence with IIAB resolving the issue should accompany the application. All new inerts except PIP inerts are reviewed by IIAB. The IIAB should also be contacted for any questions on what supporting data needs to be submitted for and the Agency's inert review process. Questions on PIP inerts should be directed to the Chief of Microbial Pesticides Branch [Link to [http://www.epa.gov/oppbppd1/biopesticides/contacts\\_bppd.htm](http://www.epa.gov/oppbppd1/biopesticides/contacts_bppd.htm)].

When a brand, trade, or proprietary name of an inert ingredient is listed on a CSF, additional information such as an alternate name of the inert, CAS number or other information [link to <http://www.epa.gov/opprd001/inerts/tips.pdf>] must also be included to enable the Agency to determine if it has been approved. Each component of an inert mixture (including a fragrance) must be identified. In some cases, the supplier of the mixture or fragrance may need to provide this information to the Agency. Prior to the Agency's receipt of an application, applicants must arrange with a proprietary mixture or fragrance supplier to provide the component information to the Agency or promptly upon EPA's request. If the inert ingredients in a proprietary blend (including fragrances) cannot or are not identified or provided within the 21-day content review period, the Agency will reject the application.

During the 21 day content review, applicants should submit information to the individual identified by the Agency when the applicant is informed of an unapproved inert.

### **Unapproved Inerts Identified on CSFs**

#### **All applications except conventional new products and PIPs**

Once an unapproved inert is identified on a CSF, the Agency will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the inert's identity or CAS number, providing documentation that the inert has been approved, or removing the unapproved inert from the CSF or replacing it with one that is approved for the application's uses; or
2. Submit the information and data needed for the Agency to approve the unapproved inert. If this option is selected and implemented, the Agency may request an extension in the PRIA decision review timeframe to accommodate the inert review/approval process;

3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of these options is selected and implemented by the applicant within the 21 day content review period, the Agency will reject the application and retain 25% of the full fee of the category identified.

#### Conventional New Product Applications

When the Registration Division identifies an unapproved inert on a CSF with an application for a new product that the applicant has not identified as requiring an inert approval (R311, R312 or R313), it will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the inert's identity or CAS number, providing documentation that the inert has been approved, or removing the unapproved inert from the CSF or replacing it with one that is approved for the application's uses; or
2. Submit the information and data needed for the Agency to approve the unapproved inert, including any required petition to establish or amend a tolerance or exemption from a tolerance. (This option may change the PRIA category for the application, which could require a longer decision review time and a larger fee. If additional fees are due, they must be received by the Agency within the 21 day content review period.)
3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of the above options is selected and implemented during the 21-day content-review period, the Agency will reject the application and retain 25% of the appropriate fee for the new product-inert approval category.

#### PIP Applications

When the Biopesticide and Pollution Prevention Division identifies an unapproved inert on a PIP CSF and a request to approve the inert does not accompany the application, it will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the spelling or name of the inert to that in 40 CFR 174, or providing documentation that the inert has been approved; or
2. Submit the information and data needed for the Agency to approve the unapproved inert. If an inert ingredient tolerance exemption petition is required, the petition must be received by the Agency and the B903 fee paid within the 21 day period. If this option is selected and implemented, the Agency will discuss harmonizing the timeframe for both actions.

3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of the above options is selected and implemented during the 21 day content review period, the Agency will reject the application and retain 25% of the fee.

B. A policy on documentation of offers to pay is still being developed, however, for a me-too or fast track (similar/identical) new product, R300 or A530, an application without the necessary authorizations of offers to pay will be placed into either R301 or A531. The Agency recommends that authorizations of offers to pay be submitted with other PRIA applications to avoid delays in the Agency's decision.

C. Biopesticide applicants are advised to contact the Agency and discuss study waivers prior to submitting their application to the Agency. Documentation of such discussions should be submitted with the study waiver.



Re: Anti-Fungal Fibers and Fabrics II (EPA Reg. No. 84542-RN), Anti-Fungal Fibers and Fabrics III (EPA Reg. No. 84542-RR) & Anti-Fungal Fibers and Fabrics IV (EPA Reg. No. 84542-RE)

Matthew Brooks

to:

Kirk Clausen

09/28/2012 03:22 PM

Cc:

Jacqueline Campbell-McFarlane

Hide Details

From: Matthew Brooks <mwbrooks01@yahoo.com>

To: Kirk Clausen/DC/USEPA/US@EPA

Cc: Jacqueline Campbell-McFarlane/DC/USEPA/US@EPA

Please respond to Matthew Brooks <mwbrooks01@yahoo.com>

Hi Kirk

I spoke with Ms. Campbell-McFarlane who will be the product manager concerning this paperwork issue and she believes it is correct in this situation. If you have any questions please contact her directly. I have cc'ed her in this email.

Thanks for your help

Sincerely

Matt Brooks

Matthew Brooks, Ph.D.

703-266-0128 Phone

703-266-4377 Fax

mwbrooks01@yahoo.com

---

**From:** Kirk Clausen <Clausen.Kirk@epamail.epa.gov>

**To:** mwbrooks01@yahoo.com

**Sent:** Friday, September 28, 2012 1:21 PM

**Subject:** Anti-Fungal Fibers and Fabrics II (EPA Reg. No. 84542-RN), Anti-Fungal Fibers and Fabrics III (EPA Reg. No. 84542-RR) & Anti-Fungal Fibers and Fabrics IV (EPA Reg. No. 84542-RE)

Matthew Brooks,

This is Kirk Clausen, EPA contractor. This email is in regards to your submission of in support of Anti-Fungal Fibers and Fabrics II (EPA Reg. No. 84542-RN), Anti-Fungal Fibers and Fabrics III (EPA Reg.

No. 84542-RR) & Anti-Fungal Fibers and Fabrics IV (EPA Reg. No. 84542-RE). We have found the following deficiencies regarding the Application Package:

1) On the Formulator's Exemption Statement, the Reg. No. of the Source does not match the Reg. No. provided in box 12 on the Confidential Statement of Formula.

These deficiencies have been approved by the EPA. The corrections can be emailed to me. Please provide us with the corrections before October 6, 2012, or your submission will be processed accordingly. After October 6, 2012, please direct all future calls and correspondence to the appropriate EPA Risk Manager. If you have any questions you may contact me via email or by phone at 703-347-8784 (I am typically available by phone between 6:30am and 3:00pm, Eastern Time).

Kirk Clausen  
Environmental Analyst  
Macfadden and Associates  
EPA contract



September 25, 2012

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

OPP Decision Number: D-469990  
EPA File Symbol or Registration Number: 84542-RR  
Product Name: CUPRON ANTI-FUNGAL FIBER AND FIBER III  
EPA Receipt Date: 20-Sep-2012  
EPA Company Number: 84542  
Company Name: CUPRON INC.

MATTHEW BROOKS, PH.D.  
AG-CHEM CONSULTING  
CUPRON INC.  
12208 QUINQUE LANE  
CLIFTON, VA 20124-

SUBJECT: Receipt of Application and 75% Small Business Waiver Request

Dear Registrant:

The Office of Pesticide Programs has received your application, 75% small business waiver request, and certification of payment. If you submitted data with this application, the results of the PRN-2011-3 screen will be communicated separately. During the administrative screen, the Office of Pesticide Programs has determined that this Action is subject to a Pesticide Registration Service Fee as defined in the Pesticide Registration Improvement Act.

The Action has been identified as Action Code: A540

NEW PRODUCT;NON-FAST TRACK;FIFRA SEC. 2(MM) USES;

Your request for waiver has been forwarded for review. You will be notified in writing when a determination is made regarding your request. If your waiver request is approved, the decision review time period will start on the date of approval. If your waiver request is denied, you will receive an invoice for the outstanding balance.

If you have any questions, please contact the Pesticide Registration Service Fee Ombudsman at (703) 308-6427.

Sincerely,

A handwritten signature in black ink, appearing to be "m. z. chen", is written over the typed name.

Front End Processing Staff  
Information Technology & Resources Management Division

**Fee for Service**

{924136\$~

This package includes the following

- ☒ New Registration
- ☐ Amendment

- ☒ Studies?      ☒ Fee Waiver?
- ☐ volpay    % Reduction: \_\_\_\_\_

for Division

- ☒ AD
- ☐ BPPD
- ☐ RD

Risk Mgr.    34

Receipt No.

S- 924136

EPA File Symbol/Reg. No.

84542-RR

Pin-Punch Date:

9/21/2012

☐ This item is NOT subject to FFS action.

Action Code:

Requested: A540

Granted: A540

Amount Due: \$ 4,631

Parent/Child Decisions:

☒ Inert Cleared for Intended Use



Uncleared Inert in Product

Reviewer: Team 3

Date: 9/23/12

Remarks:



## A540 - New end use product.

- Must submit or reference Group A and B product chemistry, toxicity, and/or efficacy data for each proposed product.
- Data waivers may be requested. Chemistry data on the TGAI in addition to the EP is required if an unregistered source is used.

End Use (EP) or Manufacturing Use (MP) product or Technical Grade of the Active Ingredient (TGAI)

Guideline No.	Group A: Product Chemistry Data Study Title	EP Data Submitted	MP Data Submitted	TGAI Data Submitted
830.1550	Product Identity & Composition		✓	
830.1600	Description of materials used to produce the product		✓	
830.1650	Description of formulation process		✓	
830.1670	Discussion on the formation of impurities		✓	
830.1700	Preliminary analysis		✓	
830.1750	Certified limits (158.345)		✓	
830.1800	Enforcement analytical method		✓	

Guideline No.	Group B: Product Chemistry Data Study Title	EP Data Submitted	MP Data Submitted	TGAI Data Submitted
830.6302	Color		✓	
830.6303	Physical State		✓	
830.6304	Odor		✓	
830.6313	Stability to normal and elevated temperatures metal and metal ions			
830.6314	Oxidation/Reduction (Chemical incompatibility)		✓	
830.6315	Flammability		✓	
830.6316	Explosibility		✓	
830.6317	Storage stability*		✓	
830.6319	Miscibility		✓	
830.6320	Corrosion Characteristics*		✓	
830.6321	Dielectric Breakdown Voltage			
830.7000	pH		✓	
830.7050	UV/ Visible Absorption			
830.7100	Viscosity		✓	
830.7200	Melting Point			
830.7220	Boiling Point			
830.7300	Density		✓	
830.7370	Dissociation Constant			
830.7550	Partition Coefficient			
830.7840	Water Solubility			
830.7950	Vapor Pressure			

Grayed out = data not required

\*May not be included with initial application

## A540 – Acute Toxicity Requirements

New products must either:

- 1) supply the product specific acute toxicity 6 pack data (listed below),
- 2) provide a bridging rationale document or waiver request or,
- 3) use the cite all method of data compensation, if applicable. The bridging document directs OPP to use a currently registered set of 6 acute toxicity data and label; instead of submitting product specific data.

Guideline No.	Acute toxicity (6 pack) Study Title	Cite All	Selective	Waiver Request	Bridging Rational
830.1100	Acute Oral (LD50)		✓		
830.1200	Acute Dermal (LD50)		✓		
830.1300	Acute Inhalation (LC50)		✓		
830.2400	Acute Eye Irritation		✓		
830.2500	Acute Dermal Irritation		✓		
830.2600	Dermal Sensitization		✓		

# Receipt for Section 3

S: 924136

Resubmission: ☐ Yes ☒ No

Regulatory Type: Product Registration - Section 3

Fee For Service: ☒ Yes ☐ No

Application Type: New Registration

Billable: ☒ Yes ☐ No

Company: 84542 CUPRON INC. V

Risk Manager: Antimicrobials Division, Risk Management Team 34

Product #: 84542-RR Product Name: CUPRON ANTI-FUNGAL FIBER AND FIBER III

Override#:

Me Too Section3: Me Too Product Name:

Application Date: 06-Sep-2012 OPP Rec'd Date: 20-Sep-2012

Front End Date: 20-Sep-2012 Risk Manager Send Date:

FFS Due Date: Negotiated Due Date:

OPP Target Date:

Fast Track: ☐ New Ingredient: ☐

Receipt Description:

NEW REGISTRATION W/STUDIES

Form A: ☐ Signature Date:

Form B: ☐ Signature Date:

Print Letter

Enter More Information

Tracking

Receipt Content

Study

CSF

View/Edit

New Ingredient

Request Date:

New Ingredient

Received Date:

Signature Date:

## Online Payment

## Step 3: Confirm Payment

1 | 2 | 3

Thank you.

Your transaction has been successfully completed.

## Pay.gov Tracking Information

Application Name: PRIA Service Fees

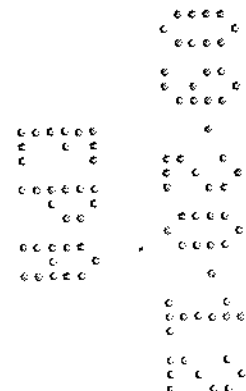
Pay.gov Tracking ID: 25816A6K

Agency Tracking ID: 74357876949

Transaction Date and Time: 09/18/2012 11:32 EDT

## Payment Summary

Address Information	Account Information	Payment Information
Account Holder Name: Matthew Brooks 12208 Quinque Billing Address: Lane Billing Address 2: City: Clifton State / Province: VA Zip / Postal Code: 20124 Country: USA	Card Type: Visa Card Number: *****1584 Decision Number: Registration Number: Company Name: Cupron Company Number: 84542 Action Code: A540	Payment Amount: \$1,158.00 Transaction Date 09/18/2012 and Time: 11:32 EDT



PESTICIDE SCIENCE AND REGISTRATION  
12208 QUINQUE LANE, CLIFTON VA 20124  
(703) 266-0128 [MWBROOKS01@YAHOO.COM](mailto:MWBROOKS01@YAHOO.COM)  
703-266-4377 FAX

To: Jacqueline Campbell-Macfarlane  
Product Manager 34  
Insecticide Branch  
Antimicrobials Division (7510P)  
One Potomac Yard (South Building)  
2777 South Crystal Yard  
Arlington VA 22202-4501

Dear Ms. Campbell-Macfarlane

We propose to make public claims against *Trichophyton mentagrophytes* (the causative agent for Athlete's Foot) in this product's labeling.

In support of this application we have submitted:

## A Confidential Statement of Formula

A Formulator's Exemption Form for data associated with the 100% repack

A proposed stewardship program as discussed in the preregistration meeting

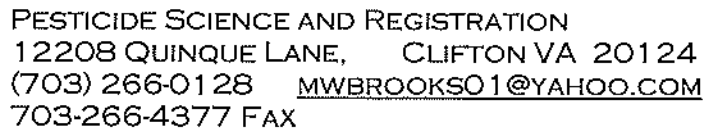
Five copies of proposed label

## A Data Matrix

### Appropriate Product Chemistry

### Appropriate Efficacy

Waiver requests for Acute Toxicology (the end use product is woven textile)



A collection of 20 small, stylized line drawings of various insects, including beetles, flies, and bees, arranged in a grid-like fashion.



Ag-Chem Consulting  
Pesticide Science and Registration  
12208 Quinque Lane, Clifton VA 20124  
(703) 266-0128 [mwbrooks01@yahoo.com](mailto:mwbrooks01@yahoo.com)  
(703) 266-4377 Fax

July 19, 2012

To: Jacqueline Campbell-McFarlane  
Product Manager 34  
Antimicrobials Division (7510P)  
One Potomac Yard (South Building)  
2777 S. Crystal Drive  
Arlington, VA 22202

**Subject: Registration of Cupron Anti-Fungal Fibers and Fabrics**  
**Waiver request for Product Specific Acute Toxicology**

**Introduction:**

As part of the registration requirement for new pesticide products, the EPA requires a set of six acute toxicology studies. These studies provide the Agency with detailed information required to produce the product signal word, precautionary statements and first aid statements.

**Summary of Request**

Cupron is requesting a waiver of these studies based upon the fact that the routes of entry associated with the toxicity of these tests is not applicable for its product.

**Acute Oral Toxicity (OPPTS 870.1100)**

The purpose of this test is to assess the potential toxicity of an end use product after oral ingestion. Cupron's Anti-Fungal Fibers and Fabrics is a copper impregnated polymer blended with nylon and cotton, essentially clothing yarn. The final products consists of socks and shirts and other apparel and fabrics. Like all clothing, it is insoluble and indigestible. Workers exposure to addition of cuprous oxide powder has been evaluated with the technical material is approving this use site. Based on the fact that this product will not be ingested any more than clothing is likely to be ingested we request a waiver of the acute oral toxicity study.

**Acute Inhalation Toxicity (OPPTS 870.1300)**

The purpose of this test is to assess the potential toxicity of an end use product after inhalation. Cupron's Anti-Fungal Fibers and Fabrics is a copper impregnated polymer blended with nylon and cotton, essentially clothing yarn. There is no dust associated with the final product in any way. Based on the fact that post production installers and consumers can not exposed to dust or inhalable particulates in any way we request a waiver of the acute inhalation toxicity study.

**Eye Irritation Study (OPPTS 870.2400)**

The purpose of this study is to determine if eye protection or first aid is required when end users are exposed to a product. Cupron's Anti-Fungal Fibers and Fabrics is a copper impregnated polymer blended with nylon and cotton, essentially clothing yarn. The final products consist of socks, shorts and other apparel. Based on the fact that eyes of post production retailers and

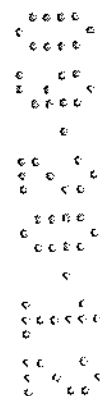
consumers are not exposed to dust or particulates in any way we request a waiver of the eye irritation study.

**Acute Dermal Toxicity, Acute Dermal Irritation, Dermal Sensitization (OPPTS 870.1200, 870.2500 and 870.2600 respectively)**

These studies assess the effects of an end use pesticide product to individuals exposed by the dermal route. They determine absorption for acute toxicity, irritant tendency or a potential to create dermal hypersensitivity (allergic reactions). As discussed above, Cupron's Anti-Fungal Fibers and Fabrics is a copper impregnated polymer blended with nylon and cotton, essentially clothing yarn. Since there is no dermal toxic endpoint for copper, exposure for irritation or sensitization tests provide no applicable results. Therefore we request a waiver of dermal acute end use product studies for our registration.

**Discussion**

In summary, Cupron's Anti-Fungal Fibers and Fabrics is a copper impregnated polymer blended with nylon and cotton, essentially clothing yarn. The routes of exposure typical to pesticide products, oral, inhalation, ocular and dermal are not applicable to this finished product. Therefore we request a waiver of conducting these studies as the probable routes of exposure are not applicable with this product.







United States  
Environmental Protection Agency  
Washington, DC 20460

☒  
☐  
☐

Registration  
Amendment  
Other

OPP Identifier Number

**Application for Pesticide - Section I**

1. Company/Product Number CupronTechnologies/84542-	2. EPA Product Manager Campbell-McFarlane	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Cupron /Cupron Anti-Fungal Fibers and Fabrics III	PM# 34	
5. Name and Address of Applicant (Include ZIP Code) Cupron Technologies c/o Ag-Chem Consulting 12208 Quinque Lane Clifton Va 20124 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

**Section - II**

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input checked="" type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

New Product Registration. Registered source of active ingredient, Active ingredient labeled for use site. PRIA Code A540

**Section - III**

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	
				<input type="checkbox"/> Plastic	
				<input type="checkbox"/> Glass	
				<input type="checkbox"/> Paper	
				<input checked="" type="checkbox"/> Other (Specify) _____	None
* Certification must be submitted					
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 2 lb.		5. Location of Label Directions <input checked="" type="checkbox"/> On garment hangtag	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input checked="" type="checkbox"/> Other affixed with plastic cord			

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)					
Name Dr. Matthew Brooks		Title Regulatory Consultant		Telephone No. (Include Area Code) 703-266-0128	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.					
2. Signature 		3. Title Regulatory Consultant		6. Date Application Received (Stamped) 	
4. Typed Name Dr. Matthew Brooks		5. Date September 6, 2012			



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**1200 Pennsylvania Avenue, N.W.**  
**WASHINGTON, D.C. 20460**

**Paperwork Reduction Act Notice:** The public reporting burden for this collection of information is estimated to average 1.25 hours per response for registration and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, Collection Strategies Division (2822T), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, N.W., Washington, DC 20460. Do not send the completed form to this address.

**Certification with Respect to Citation of Data**

Applicant's/Registrant's Name, Address, and Telephone Number Cupron Inc. c/o Ag-Chem Consulting /12208 Quinque Lane, Clifton, VA 20124 and 703-266-0128	EPA Registration Number/File Symbol 84542-
Active Ingredient(s) and/or representative test compound(s) Copper Oxide	Date 9/6/12
General Use Pattern(s) (list all those claimed for this product using 40 CFR Part 158) Terrestrial, nonfood	Product Name Cupron Anti-fungal Fiber and Fabrics III

**NOTE:** If your product is a 100% repackaging of another purchased EPA-registered product labeled for all the same uses on your label, you do not need to submit this form. You must submit the Formulator's Exemption Statement (EPA Form 8570-27).

☐ I am responding to a Data-Call-In Notice, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).

**SECTION I: METHOD OF DATA SUPPORT (Check one method only)**

☐ I am using the cite-all method of support, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).

☒ I am using the selective method of support (or cite-all option under the selective method), and have included with this form a completed list of data requirements (the Data Matrix form must be used).

**SECTION II: GENERAL OFFER TO PAY**

[Required if using the cite-all method or when using the cite-all option under the selective method to satisfy one or more data requirements]

☒ I hereby offer and agree to pay compensation, to other persons, with regard to the approval of this application, to the extent required by FIFRA.

**SECTION III: CERTIFICATION**

I certify that this application for registration, this form for reregistration, or this Data-Call-In response is supported by all data submitted or cited in the application for registration, the form for reregistration, or the Data-Call-In response. In addition, if the cite-all option or cite-all option under the selective method is indicated in Section I, this application is supported by all data in the Agency's files that (1) concern the properties or effects of this product or an identical or substantially similar product, or one or more of the ingredients in this product; and (2) is a type of data that would be required to be submitted under the data requirements in effect on the date of approval of this application if the application sought the initial registration of a product of identical or similar composition and uses.

I certify that for each exclusive use study cited in support of this registration or reregistration, that I am the original data submitter or that I have obtained the written permission of the original data submitter to cite that study.

I certify that for each study cited in support of this registration or reregistration that is not an exclusive use study, either: (a) I am the original data submitter; (b) I have obtained the permission of the original data submitter to use the study in support of this application; (c) all periods of eligibility for compensation have expired for the study; (d) the study is in the public literature; or (e) I have notified in writing the company that submitted the study and have offered (i) to pay compensation to the extent required by sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA; and (ii) to commence negotiations to determine the amount and terms of compensation, if any, to be paid for the use of the study.

I certify that in all instances where an offer of compensation is required, copies of all offers to pay compensation and evidence of their delivery in accordance with sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA are available and will be submitted to the Agency upon request. Should I fail to produce such evidence to the Agency upon request, I understand that the Agency may initiate action to deny, cancel or suspend the registration of my product in conformity with FIFRA.

I certify that the statements I have made on this form and all attachments to it are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

Signature 	Date 9/6/12	Typed or Printed Name and Title Dr. Matthew Brooks, Regulatory Agent
---------------	----------------	---



United States  
Environmental Protection Agency  
Washington, DC 20460  
**Formulator's Exemption Statement**  
(40 CFR 152.85)

Applicant's Name and Address  Cupron Inc. P.O. Box 85073 Richmond VA 23285	EPA File Symbol/Registration Number  84542-
	Product Name  Cupron Anti-Fungal Fibers and Fabrics III
	Date of Confidential Statement of Formula (EPA Form 8570-4)  September 6, 2012

As an authorized representative of the applicant for registration of the product identified above, I certify that:

(1) This product contains the following active ingredient(s):

Cuprous Oxide

(2) Of these, each active ingredient listed in paragraph (4) is present solely as the result of the use of that active ingredient in the manufacturing, formulation or repackaging another product which contains that active ingredient which is registered under FIFRA Section 3, is purchased by us from another producer, and is labeled for at least each use for which my product is proposed to be labeled.

(3) Indicate by checking (A) or (B) below which paragraph applies:

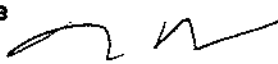
☒ (A) An accurate Confidential Statement of Formula (EPA FORM 8570-4) for the above identified product is attached to this statement. That formula statement indicates, by company name, registration number, and product name, the source of the active ingredient(s) listed in paragraph (1).

OR

☐ (B) The Confidential Statement of Formula (CSF) (EPA Form 8570-4) referenced above and on file with the EPA is complete, current, and accurate and contains the information required on the current CSF.

(4) The following active ingredients in this product qualify for the formulator's exemption.

**Source**

Active Ingredient	Product Name	Registration Number
Cuprous Oxide	[REDACTED]	[REDACTED]
Signature 	Name and Title Matthew Brooks, Regulatory Consultant	Date 9-7-12



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
401 M Street, S.W.  
WASHINGTON, D.C. 20460

Form Approved OMB No. 2070-0060



**Paperwork Reduction Act Notice:** The public reporting burden for this collection of information is estimated to average 0.25 hours per response for registration activities and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the form to this address.

DATA MATRIX

Date 9/6/12	EPA Reg No./File Symbol 84542-	Page 1 of 3			
Applicant's/Registrant's Name & Address Cupron, 12208 Quinque Lane, Clifton VA 20124		Product Cupron Anti-Fungal Fibers and Fabrics III			
Ingredient Copper (I) Oxide					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
830.6302	Color		Cupron	Submitted	
830.6303	Physical State		Cupron	Submitted	
830.6304	Odor		Cupron	Submitted	
830.6313	Stability		Cupron	Submitted	
830.6314	Oxidation/Reduction: Chemical incompatibility		Cupron	Submitted	
830.6315	Flammability		Cupron	Submitted	
830.6316	Explosibility		Cupron	Submitted	
830.6317	Storage Stability		Cupron	Submitted	
830.6319	Miscibility		Cupron	Submitted	
830.6320	Corrosion Characteristics		Cupron	Submitted	
830.6321	Dielectric Breakdown Voltage		Cupron	Submitted	
830.7000	Plasticity		Cupron	Submitted	
830.7050	UV / Visible		Cupron	NA	Not Req for EP
830.7100	Viscosity		Cupron	Submitted	
830.7200	Melting Range		Cupron	NA	Not Req for EP
Signature 			Name and Title Dr. Matthew Brooks, Director		Date 9/6/12

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			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	NA	
			Cupron	Submitted	
Cupron	NA				
Signature 			Name and Title Dr. Matthew Brooks, Director		Date 9/6/12

**Applicant's/Registrant's Name & Address**

Cupron, 12208 Quinque Lane, Clifton VA 20124

Product

Cupron Anti-Fungal Fibers and Fabrics III

Ingredient Copper (I) Oxide

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
003 21-05-00			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	Submitted	
			Cupron	NA	
Cupron	Submitted				
Cupron	NA				

**Signature**

Name and Title

Dr. Matthew Brooks, Director

Date \_\_\_\_\_

9/6/12




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WASHINGTON, D.C. 20460

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DATA MATRIX

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Applicant's/Registrant's Name & Address Cupron, 12208 Quinque Lane, Clifton VA 20124		Product Cupron Anti-Fungal Fibers and Fabrics III			
Ingredient Copper (I) Oxide					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
830.7220	Boiling Range		Cupron	NA	Not Req for EP
830.7300	Bulk Density / Specific Gravity		Cupron	Submitted	
830.7370	Dissociation Constant in Water		Cupron	NA	Not Req for EP
830.7520	Particle Size / Distribution		Cupron	Submitted	
830.7550	Partition Coefficient		Cupron	NA	Not Req for EP
830.7840	Water Solubility		Cupron	NA	Not Req for EP
830.7950	Vapor Pressure		Cupron	NA	Not Req for EP
830.1650	Description of Formulation Process		Cupron	Submitted	
830.1670	Discussion of Impurities		Cupron	Submitted	
830.1700	Preliminary Analysis		Cupron	Submitted	
830.1750	Certified Limits		Cupron	Submitted	
830.1800	Enforcement Analytical Method		Cupron	Submitted	
830.1550	Product Identity and Composition		Cupron	Submitted	
830.1600	Description of Materials Used to Produce the Product		Cupron	Submitted	
830.1620	Description of Production Process		Cupron	Submitted	
Signature 			Name and Title Dr. Matthew Brooks, Director		Date 9/6/12





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
401 M Street, S.W.  
WASHINGTON, D.C. 20460

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DATA MATRIX

Date 9/6/12	EPA Reg No./File Symbol 84542-	Page 3 of 3
Applicant's/Registrant's Name & Address Cupron, 12208 Quinque Lane, Clifton VA 20124	Product Cupron Anti-Fungal Fibers and Fabrics III	

Ingredient Copper (I) Oxide

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
870.1100	Acute Oral Toxicity - rat		Cupron		Waiver requested
870.1200	Acute Dermal Toxicity		Cupron		Waiver requested
870.1300	Acute Inhalation Toxicity - rat		Cupron		Waiver requested
870.2400	Primary Eye Irritation - rabbit		Cupron		Waiver requested
870.2500	Primary Dermal Irritation		Cupron		Waiver requested
870.2600	Dermal Sensitization		Cupron		Waiver requested
91-4	Efficacy of impregnated textile against trichophyton menta		Cupron	Submitted	

Signature 	Name and Title Dr. Matthew Brooks, Director	Date 9/6/12
---------------	--	----------------



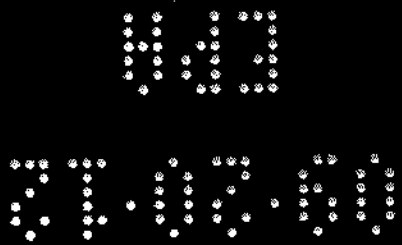



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Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
			Cupron		
			Cupron		
			Cupron		
			Cupron		
			Cupron		
			Cupron		
			Cupron	Submitted	
Signature 			Name and Title Dr. Matthew Brooks, Director		Date 9/6/12



**Ag-Chem Consulting**  
Pesticide Science and Registration  
12208 Quinque Lane, Clifton VA 20124  
(703) 266-0128 [mwbrooks01@yahoo.com](mailto:mwbrooks01@yahoo.com)  
(703) 266-4377 Fax

July 19, 2012

To: Jacqueline Campbell-McFarlane  
Product Manager 34  
Antimicrobials Division (7510P)  
One Potomac Yard (South Building)  
2777 S. Crystal Drive  
Arlington, VA 22202

**Subject: Registration of Cupron Anti-Fungal Fibers and Fabrics  
Product Stewardship Proposal**

From: Matthew Brooks, Regulatory Agent

#### **Anti Athlete's Foot Textiles**

The majority of Cupron sales as a fungal sanitizer would be to the commercial sportswear or industrial markets and as such we propose to implement a stewardship program consisting of:-

- A dedicated section of the Cupron website ([www.cupron.com](http://www.cupron.com)) with specific guide directions to the use and maintenance of the technology in a garment, information for the consumer and manufacturer also regarding composition of materials, claims, marketing materials and use of the registration (manufacturer must be signed in to review this section).

- A dedicated telephone number able to provide specific guide directions to the use and maintenance of the technology in a garment for any consumer who does not have the care instructions to hand

- Random sampling and testing for conformity with the guideline language, technical specifications and conformity with registration performed by Cupron.

Master Label containing

Sublabel 1. Complete Label

Sublabel 2. Hang Tag label

## CUPRON ANTI-FUNGAL FIBERS AND FABRICS III

\*\*\*\*\*

Active Ingredient

Copper (I) oxide 1.95 %

Other Ingredients (Garment) 98.05.%

Total 100 %

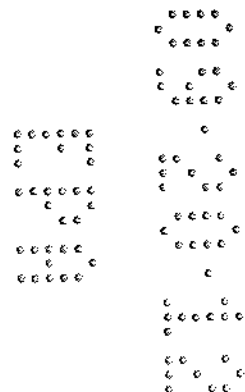
EPA Registration No. 84542-

EPA Establishment No \*\*\*\*\*

Made in the United States by Cupron Inc, Richmond, VA 23219

Distributed by\*\*\*\*\*

Net Contents\*\*\*\*\*



Cupron Anti Fungal Fibers and Fabrics III

Label Version 2

9/6/12

Page 1 of 4

## Cupron Anti Fungal Fibers and Fabrics III

**-THIS TEXTILE (OR IDENTIFIED ACTIVE AREA) CONTAINS CUPRON ANTI-MICROBIAL TECHNOLOGY**

Laboratory testing has shown that when cleaned regularly:

[The organism listed in the bracket ( ) may be chosen from *Trichophyton rubrum*, *Trichophyton mentagrophytes*, or *Epidermophyton floccosum*]

[Cupron enhanced fibers/fabric will assist in reducing the spread of (*Trichophyton mentagrophytes*)]

[Cupron enhanced fibers/fabric will reduce (*Trichophyton mentagrophytes*) by over 90% after 4 hours of contact with the sock]

[Cupron enhanced fibers/fabric will kill (*Trichophyton mentagrophytes*) by over 90% after 4 hours of contact with the sock]

[Cupron enhanced fibers/fabric will inhibit the propagation and harboring of (*Trichophyton mentagrophytes*)]

[Cupron enhanced fibers/fabric will inhibit the propagation and harboring of (*Trichophyton mentagrophytes*) that come into contact with the material]

[Cupron enhanced fibers/fabric will help to inhibit the growth of (*Trichophyton mentagrophytes*), the causative agent of athlete's foot]

[Cupron enhanced fibers/fabric will suppress the growth of (*Trichophyton mentagrophytes*), the fungus that is the causative agent of athlete's foot.)

[Cupron enhanced fibers/fabric will suppress the growth of (*Trichophyton mentagrophytes*), the fungus that is the causative agent of athlete's foot upon the material.]

[Cupron enhanced fibers/fabric will reduce the propagation of (*Trichophyton mentagrophytes*)]

**THIS PRODUCT IS EFFICACIOUS UP TO 20 MACHINE WASHINGS**

The use of this textile is a supplement to and not a substitute for standard infection control practices; users must continue to follow all current infection control practices, including those practices related to

Cupron Anti Fungal Fibers and Fabrics III

cleaning and sanitizing/disinfection of textiles. This textile has been shown to reduce microbial contamination, but it does not necessarily prevent cross contamination.

\*\*\*\*

Active Ingredient	
Copper (I) Oxide	1.95%
Other Ingredients (Garment)	98.05%
Total	100 %

EPA Registration No. 84543-

Made in the United States by Cupron Inc,  
800 East Leigh Street, Richmond, VA 23219

EPA Establishment No \*\*\*\*\*

Distributed by\*\*\*\*\*

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

[The directions in bracketed text may be included in an insert. If so there will be a statement to see the insert for additional directions for use of the product]

This product will retain its antimicrobial properties for 20 washings if maintained in the following manner:

Machine Wash Regular (not compatible with silvercare machines)

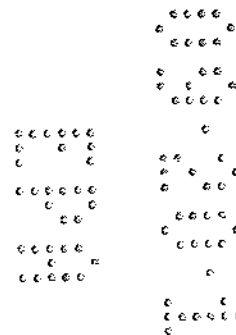
Temperature Cold, Warm, or Hot (up to 176 degrees Fahrenheit)

Tumble dry hot (up to 347 degrees Fahrenheit) for up to 30 minutes

May use Clorox or similar bleach

Do not use fabric softener, or laundry detergent containing fabric softeners

Do not dry clean.



(Cupron Anti Fungal Fibers and Fabrics III may be used in hospitals, other healthcare facilities, and various public, commercial and residential buildings for the uses listed below.)

Cupron Anti Fungal Fibers and Fabrics III

TEXTILES ARE TO BE USED TO MAKE SOCKS, FOOTWEAR, SHOE INSERTS , BATHMATS,

#### STORAGE AND DISPOSAL

**Disposal:** Discard in trash when fibers/fabric are worn out after 20 washings. Do not reuse clothing for other purposes than as sold.

#### Bag Tag

##### CUPRON ANTI-FUNGAL FIBERS AND FABRICS III

Kills 90% of the following Fungus within 4 hours of Exposure to the Cupron Fibers and Fabrics:

(Trichophyton mentagrophytes)

(other tested fungi)

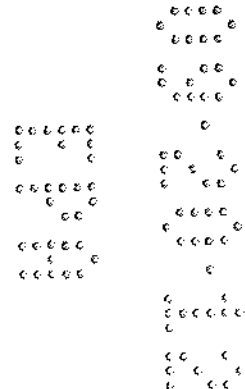
Active Ingredient

Copper (I) Oxide 1.95 %

EPA Reg. No

EPA Est No.

Dispose of garment in trash. Refer to hang tag for more information



Cupron Anti Fungal Fibers and Fabrics III

Master Label containing

Sublabel 1. Complete Label

Sublabel 2. Hang Tag label

## CUPRON ANTI-FUNGAL FIBERS AND FABRICS III

\*\*\*\*\*

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Other Ingredients (Garment) 98.05. %

Total 100 %

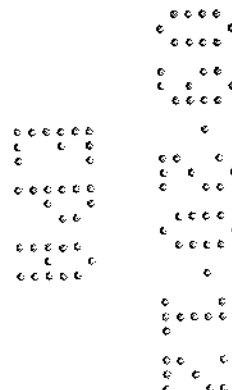
EPA Registration No. 84542-

EPA Establishment No \*\*\*\*\*

Made in the United States by Cupron Inc, Richmond, VA 23219

Distributed by\*\*\*\*\*

Net Contents\*\*\*\*\*



Cupron Anti Fungal Fibers and Fabrics III

Label Version 2

9/6/12

Page 1 of 4

Sublabel I. Complete Label

## Cupron Anti Fungal Fibers and Fabrics III

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EPA Registration No. 84543-

Made in the United States by Cupron Inc,  
800 East Leigh Street, Richmond, VA 23219

EPA Establishment No \*\*\*\*\*

Distributed by\*\*\*\*\*

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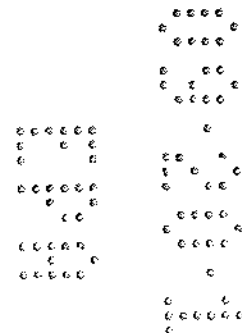
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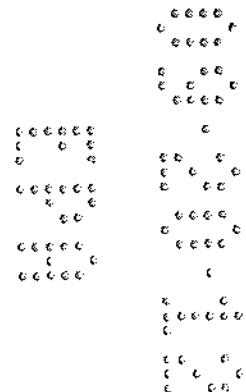
Active Ingredient

Copper (I) Oxide 1.95 %

EPA Reg. No

EPA Est No.

Dispose of garment in trash. Refer to hang tag for more information



Cupron Anti Fungal Fibers and Fabrics III

